FIG. 1

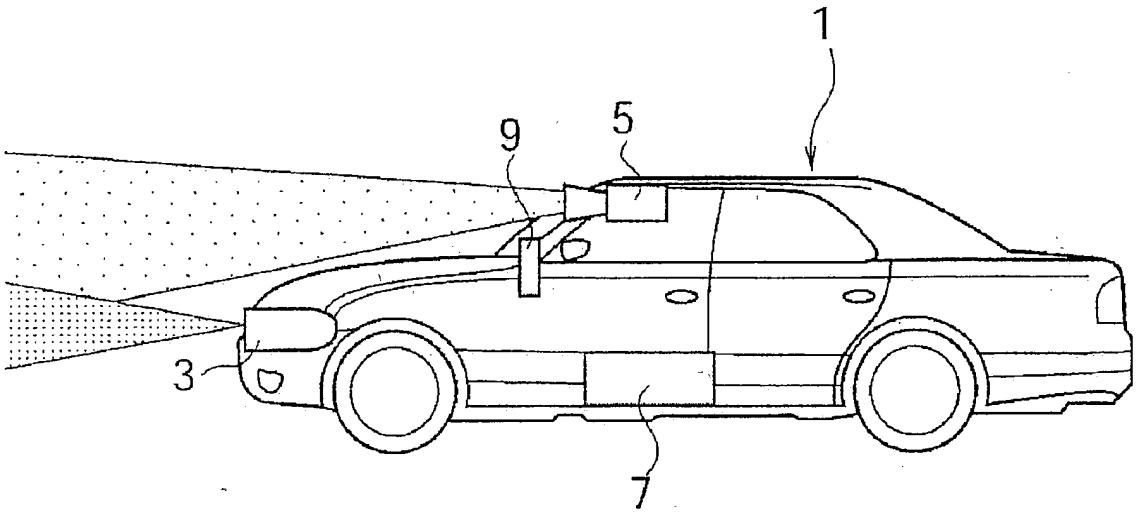


FIG. 2

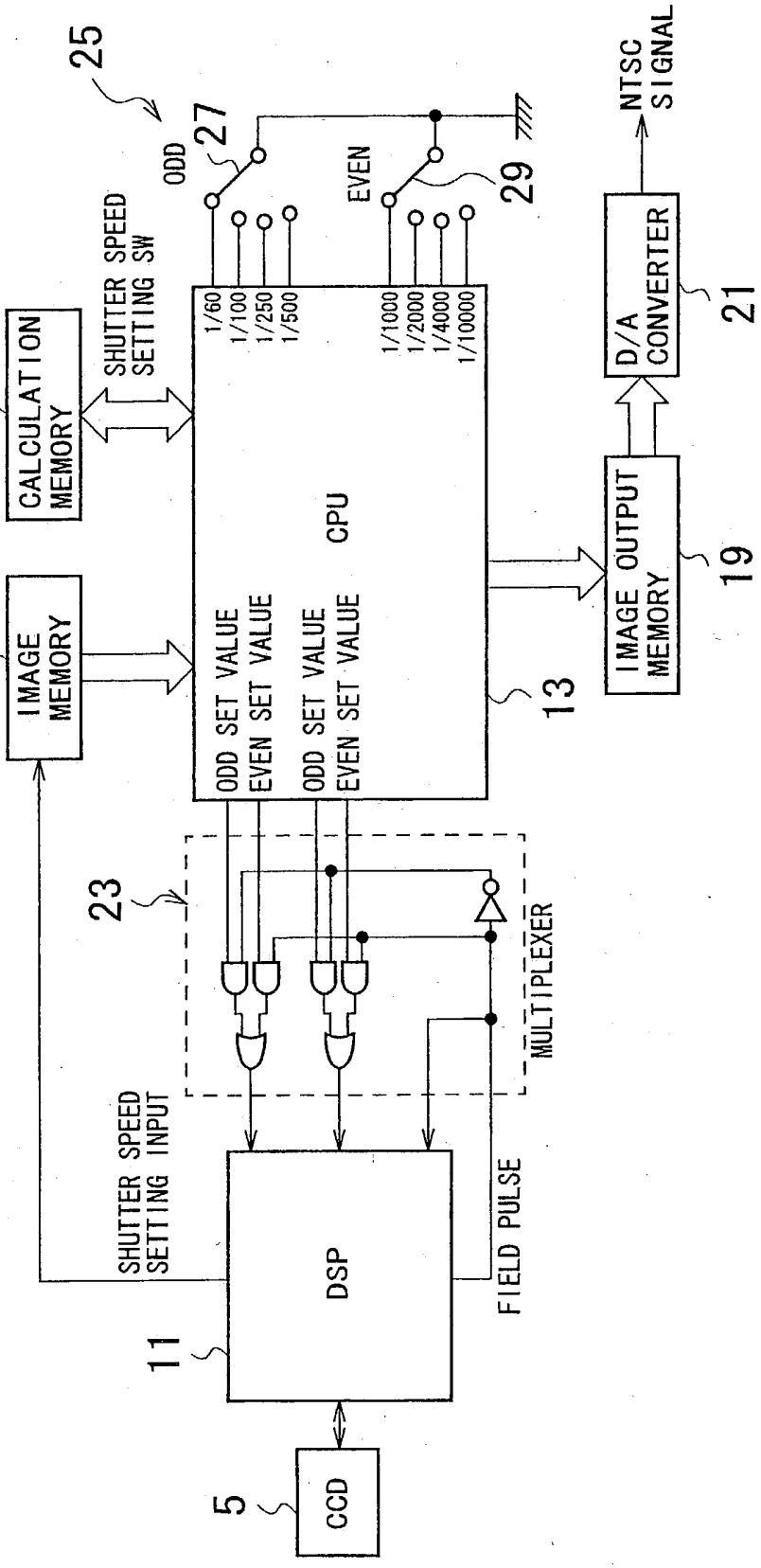

25
ODD
27
EVEN
29
NTSC SIGNAL
SHUTTER SPEED SETTING SW
1/60
1/100
1/250
1/500
1/1000
1/2000
1/4000
1/10000
D/A CONVERTER
21
17
CALCULATION MEMORY
7
CPU
ODD SET VALUE
EVEN SET VALUE
ODD SET VALUE
EVEN SET VALUE
15
IMAGE MEMORY
13
IMAGE OUTPUT MEMORY
19
23
MULTIPLEXER
SHUTTER SPEED SETTING INPUT
FIELD PULSE
DSP
11
5
CCD

FIG. 3

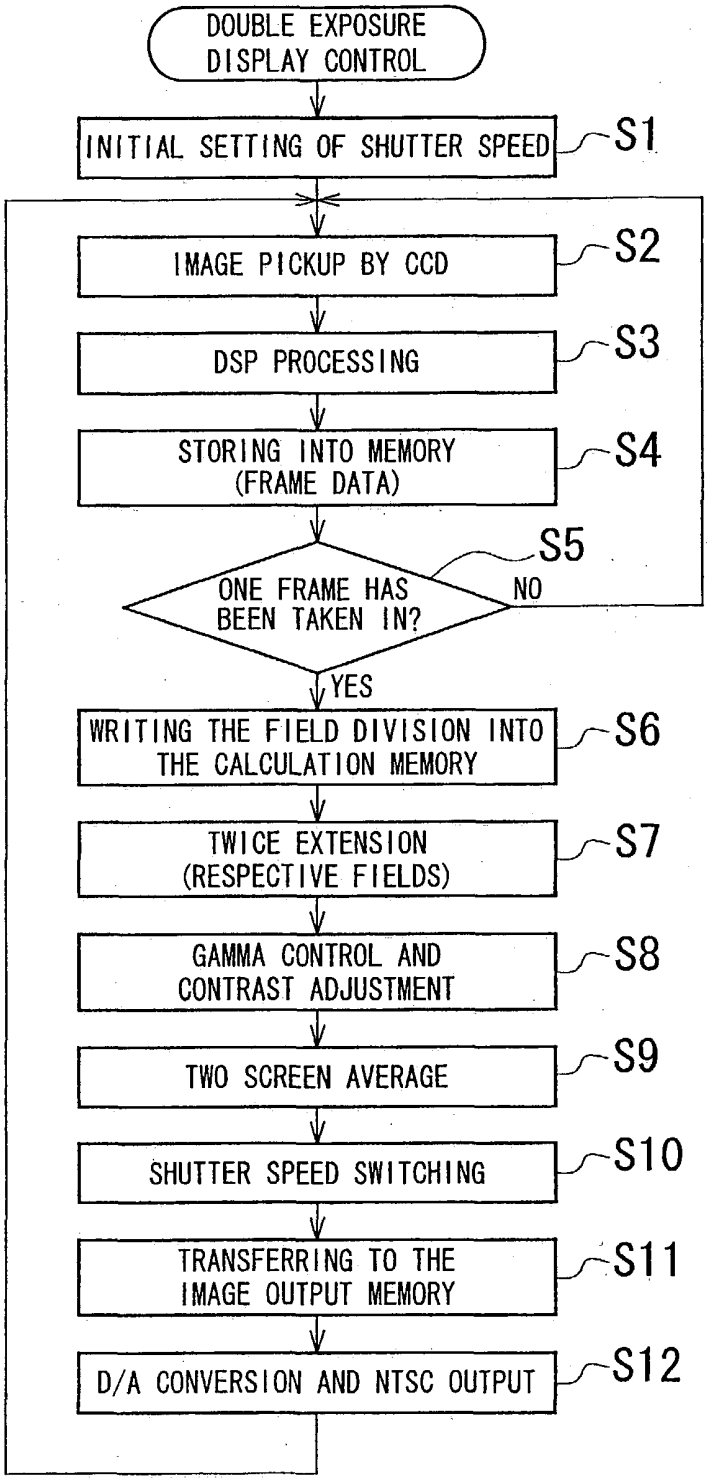

DOUBLE EXPOSURE DISPLAY CONTROL
INITIAL SETTING OF SHUTTER SPEED
S1
IMAGE PICKUP BY CCD
S2
DSP PROCESSING
S3
STORING INTO MEMORY (FRAME DATA)
S4
ONE FRAME HAS BEEN TAKEN IN?
S5
NO
YES
WRITING THE FIELD DIVISION INTO THE CALCULATION MEMORY
S6
TWICE EXTENSION (RESPECTIVE FIELDS)
S7
GAMMA CONTROL AND CONTRAST ADJUSTMENT
S8
TWO SCREEN AVERAGE
S9
SHUTTER SPEED SWITCHING
S10
TRANSFERRING TO THE IMAGE OUTPUT MEMORY
S11
D/A CONVERSION AND NTSC OUTPUT
S12

FIG. 4

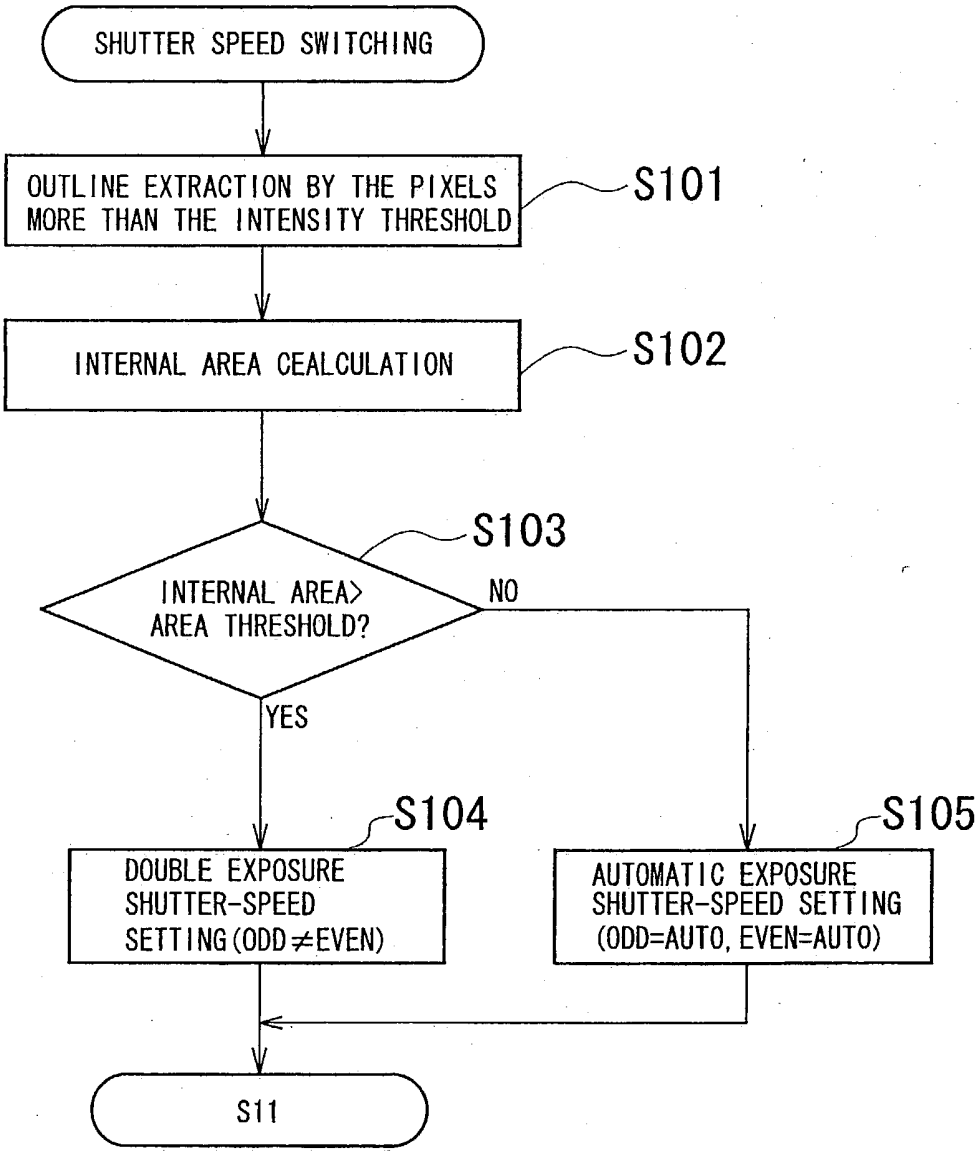
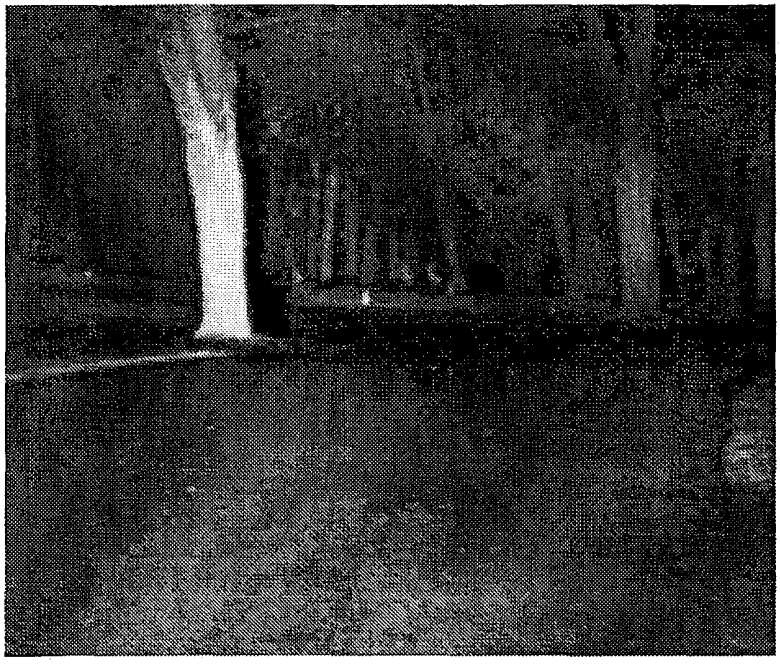
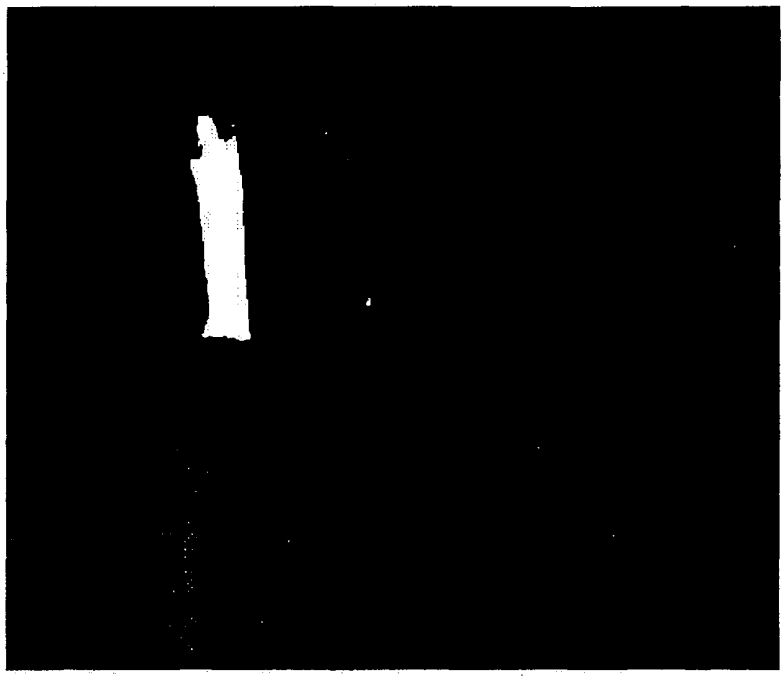

SHUTTER SPEED SWITCHING
OUTLINE EXTRACTION BY THE PIXELS MORE THAN THE INTENSITY THRESHOLD
S101
INTERNAL AREA CEALCULATION
S102
S103
INTERNAL AREA> AREA THRESHOLD?
NO
YES
S104
DOUBLE EXPOSURE SHUTTER-SPEED SETTING (ODD≠EVEN)
S105
AUTOMATIC EXPOSURE SHUTTER-SPEED SETTING (ODD=AUTO, EVEN=AUTO)
S11

FIG.5
(a)

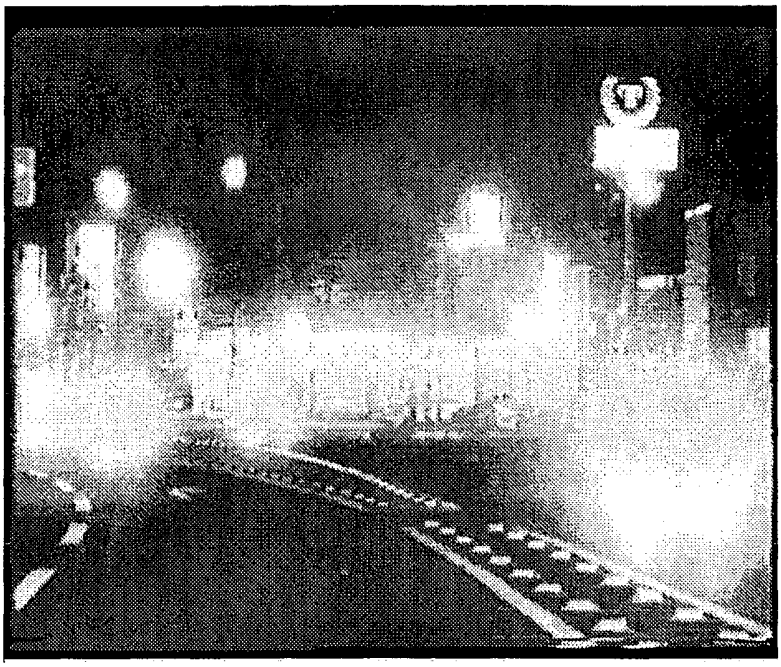


(b)



BEST AVAILABLE COPY

FIG.6
(a)



(b)

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FIG. 7

(a)

FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF

(b) 31 33 35 37 39

0	0	2	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF
FF	FF	FF	FF	FF	FF	FF	FF

(c)

0	0	2	2	FF	FF	FF	FF
FF	2	FF	FF	2	2	FF	FF
FF	2	FF	FF	FF	FF	2	2
2	FF	FF	FF	FF	FF	FF	2
2	FF	FF	FF	FF	FF	FF	2
2	FF	FF	FF	FF	FF	2	2
FF	2	FF	2	2	2	FF	FF
FF	FF	2	FF	FF	2	FF	FF

(d)

0	0	2	2	FF	FF	FF	FF
FF	2	1	1	2	2	FF	FF
FF	2	1	1	1	1	2	2
2	1	1	1	1	1	1	2
2	1	0	1	1	1	1	2
2	1	0	1	1	1	2	2
FF	2	1	2	2	2	FF	FF
FF	FF	2	FF	FF	2	FF	FF

(e)

0	0	2	2	0	0	0	0
0	2	1	1	2	2	0	0
0	2	1	1	1	1	2	2
2	1	1	1	1	1	1	2
2	1	0	1	1	1	1	2
2	1	0	1	1	1	2	2
0	2	1	2	2	2	0	0
0	0	2	0	0	2	0	0

(f)

2	3	4
1		5
8	7	6

FIG.8

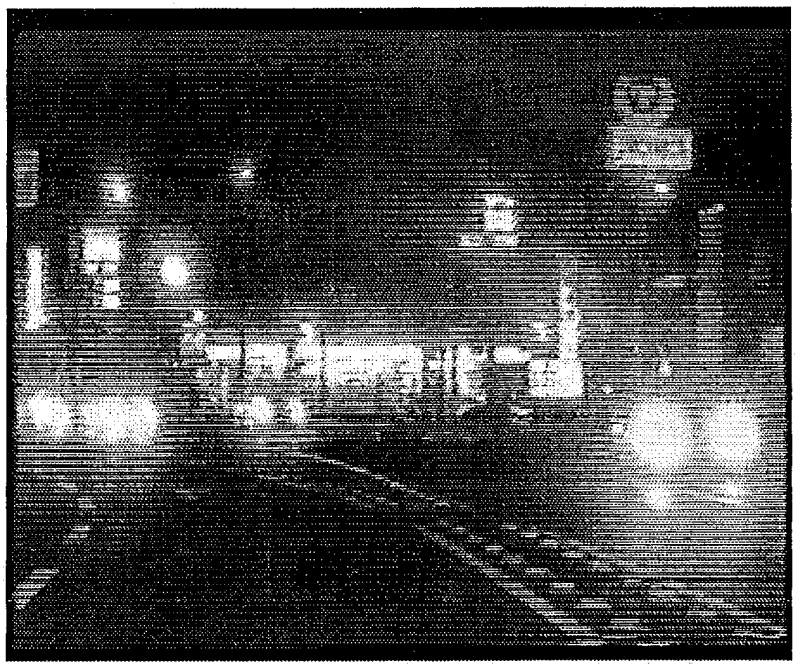

FIG.9

(a)

(b)

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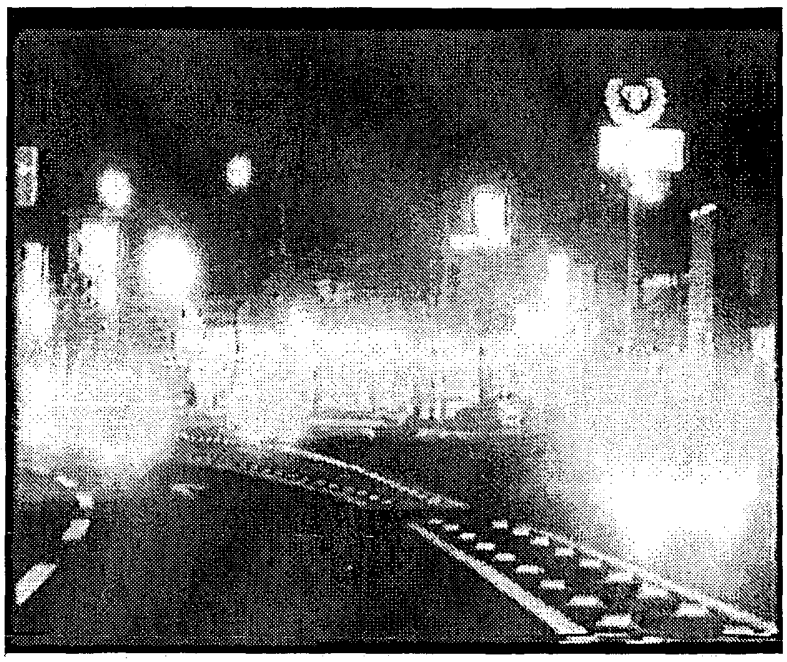
FIG.10
(a)



(b)

BEST AVAILABLE COPY

FIG.11
(a)

(b)

...ST AVAILABLE COPY

FIG.12

BEST AVAILABLE COPY

FIG. 13

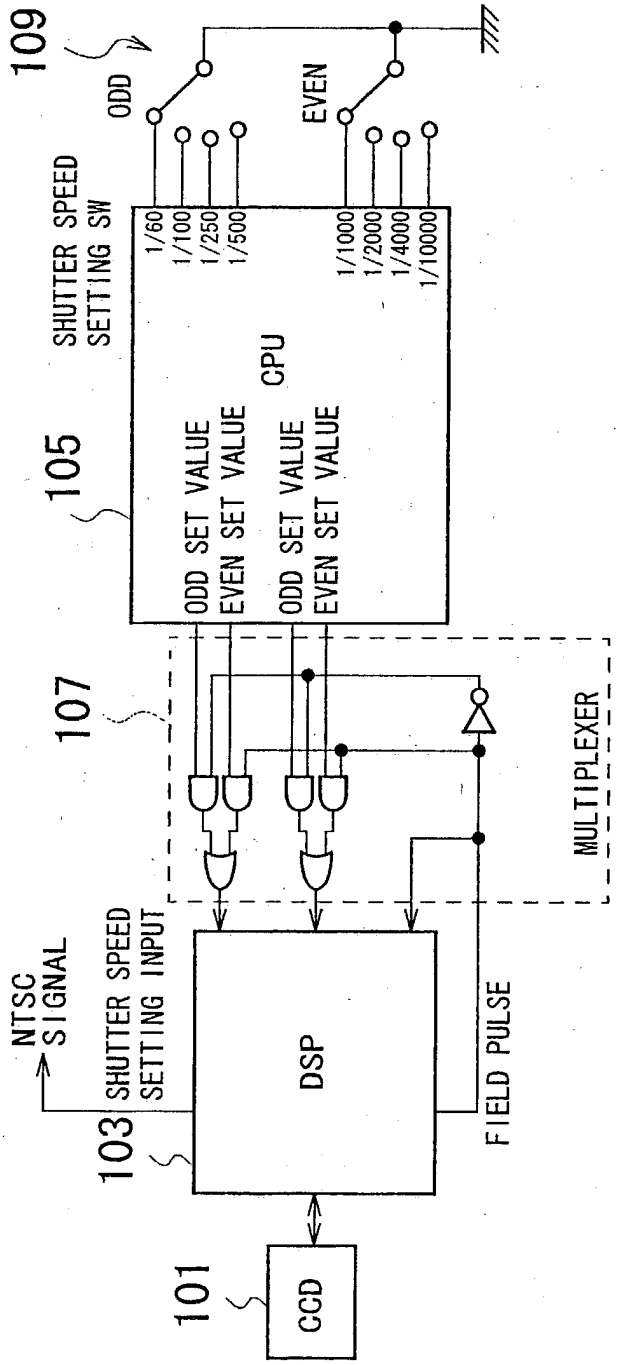

109
ODD
EVEN
SHUTTER SPEED SETTING SW
1/60
1/100
1/250
1/500
1/1000
1/2000
1/4000
1/10000
105
CPU
ODD SET VALUE
EVEN SET VALUE
ODD SET VALUE
EVEN SET VALUE
107
MULTIPLEXER
NTSC SIGNAL
SHUTTER SPEED SETTING INPUT
103
DSP
FIELD PULSE
101
CCD

FIG. 14

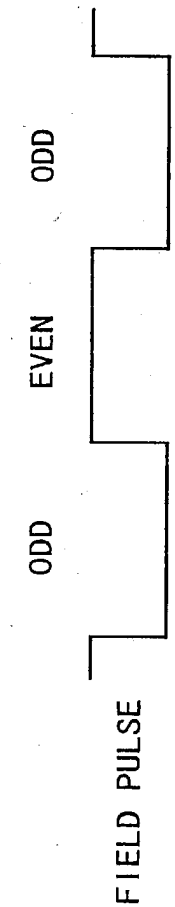

ODD
EVEN
ODD
FIELD PULSE

FIG.15

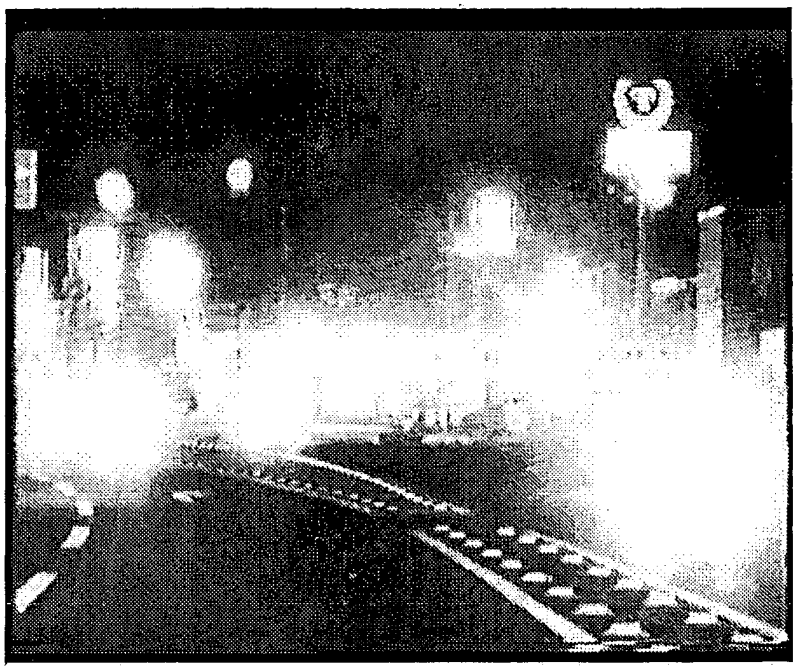


FIG.16

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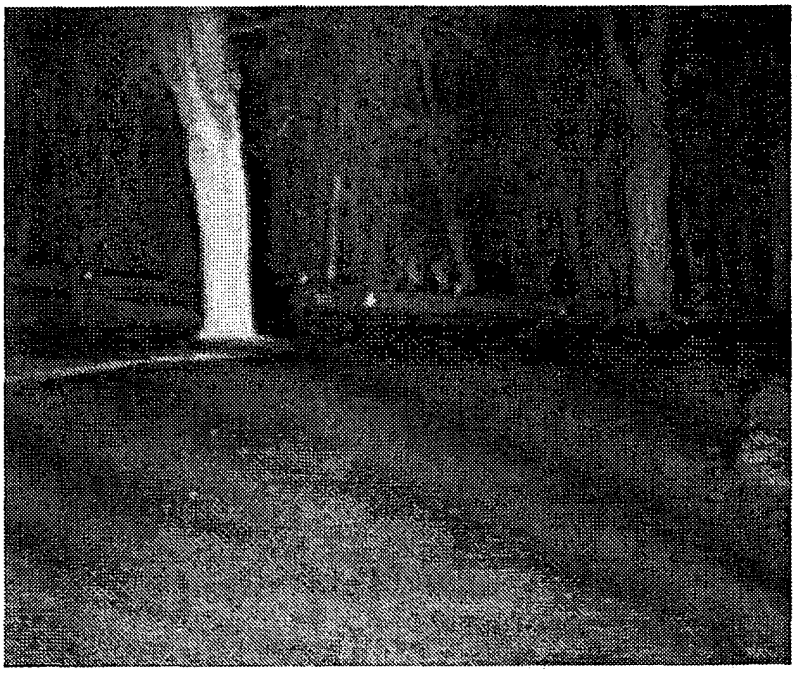
FIG.17

FIG.18



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